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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|--------------------------------|---------------------|------------------|
| 10/045,686 | 10/29/2001 | Constantine N. Anagnostopoulos | 83230AEK | 9910 |

7590 03/16/2004

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EXAMINER

SCHWARTZ, PAMELA R

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1774

DATE MAILED: 03/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|------------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/045,686 | ANAGNOSTOPOULOS ET AL. | |
| | Examiner | Art Unit | |
| | Pamela R. Schwartz | 1774 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-15, 17-23 and 26-33 is/are pending in the application.
- 4a) Of the above claim(s) 7 and 26-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 9, 11-15, and 17-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-9, 11-15, 17-23 and 26-33 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

1. Applicant's election without traverse of Group I and the species as specified in claims 6, 8, 9 and 14 in Paper No. 11/25/2003 is acknowledged.

2. It is noted that only every other page of the patent documents submitted by applicants with their information disclosure statement were found in the file.

Consequently, these documents have not been fully considered but will be considered upon submission of complete copies of the references. Full copies of the non-patent literature were received.

3. In the ink jet recording art, the term "medium" is singular and the term "media" is plural.

4. Applicants' terminal disclaimer has been approved.

5. Claims 1-6,8,9 and 11-15, 17-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The amendment to the third and fourth line is new matter. The examiner was unable to find support in the specification for the limitation that an image receiving polymeric layer be present between the hydrophilic base and the support.

6. Claim 8 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 8 and 9 appear to be inconsistent with claim 1 from which it depends. Claim 8 recites that the cells are bonded to a hydrophobic

layer and claim 9, which depends from claim 8, recites that the hydrophilic base of the cell is bonded to the hydrophobic layer. However, claim 1 now recites that the base of the cell is bonded to an ink-receiving layer. This layer will not be hydrophobic or it will be unable to receive an aqueous ink. Therefore, claims 8 and 9 appears to be inconsistent with claim 1. Clarification is required.

Since claims 8 and 9 are inconsistent with claim 1, and it is unclear how applicants intended the limitations of these claims to be incorporated into the medium of claim 1, they will not be rejected over the prior art until the relationship to claim 1 is clarified. However, if the new matter from claim 1 is deleted or if applicants have an acceptable explanation of how these layers may all be present, the examiner will have to reconsider application of the prior art to these claims.

7. Claims 1-6 and 11-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ylitalo et al. (WO 00/73082) for reasons of record and for reasons given below.

The reference describes an embossable polymeric sheet (see page 13, line 17 to page 14, line 15). The polymeric sheet may be a laminate, therefore, one layer may serve as the support, while another serves as the hydrophobic cell walls of the instant claim 1.

The reference states that the polymeric sheets may be augmented with outer coatings to improve ink receptivity and refers to the Background Section which describes coatings known to those of ordinary skill in the art. On page 3, media having dual receptive layers are described. Therefore, claim 1 reads on the description of the reference, the outermost of the dual layers serving as the hydrophilic cell base and the underlayer as the image receiving polymeric layer of claim 1. Normally, the materials

used to form ink receptive layers would not fuse at temperatures of less than 100 °C so that the last limitation of claim 1 will inherently be met.

8. Applicant's arguments filed November 25, 2003 have been fully considered but they are not persuasive. Applicants argue that since the walls and base are embossed from one material, the walls of the cells will slip down into the base material upon heating. This is not persuasive. The base portions of the cells of the reference may be coated with a hydrophilic ink receptive material which will act as the image receiving layer of claim 1. This material would not melt at the temperatures set forth by applicants claim 1. Therefore, the language of claim 1 is technically met by the reference. In addition, while unnecessary to meet to current language of claim 1, the examiner also believes that the top of the cell walls could be melted to form a protective overcoat without melting the walls into the base material. These materials are not highly conductive and could be melted at the top of the cell wall while other areas remain solid.

Applicants argue that it would not be obvious to include UV absorbers in the cell wall of the reference because the reference does not contemplate melting of the cell walls to form a protective overcoat. This argument is not persuasive because there are numerous teachings in the art of including UV absorbing materials in different layers of ink jet recording materials, i.e. in layers other than protective overcoats. In addition, the reference discloses the that the polymeric film used to form the cell walls of the reference may be clear or tinted, transparent, translucent or opaque (see page 13). Therefore, the reference would teach one of ordinary skill in the art that the cell walls may include materials that will cause the cell walls to absorb UV radiation.

The reference refers to temperatures beginning at about 100 °C for the press mold and extruder used to form the micro-embossed surface. Therefore, it would have been obvious to one of ordinary skill in the art to utilize material for the cell walls that is capable of being fused below this temperature. At the very least, applicants' limitation of "less than 100°C" is not sufficiently different from the temperatures disclosed in the prior art formation processes to render applicants article patentably distinct.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

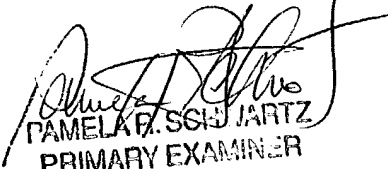
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela Schwartz whose telephone number is (571) 272-1528.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on (571) 272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PRSchwartz
March 5, 2004



PAMELA R. SCHWARTZ
PRIMARY EXAMINER